Introduction

On May 23, 2006 an addendum work plan was submitted to the EPA to perform pipeline clean out and abandonment, in compliance with the approved Removal Action Work Plan for the Falcon Refinery Superfund Site, which is dated June 29, 2004. A copy of the addendum work plan is provided in Appendix A of this document. After reviewing the work plan the EPA On-Scene Coordinator (OSC) approved the plan with the required changes that are provided in Appendix B. Maps showing the locations of the pipeline cuts can be found in the addendum work plan in Appendix A.

This report describes the implementation of the addendum work plan.

The EPA OSC was provided five days notice of the pipeline cleanout and abandonment ant the EPA Remedial Project Manager (RPM) and a representative of the Texas Commission on Environmental Quality (TCEQ) observed field activities on June 14th and 15th.

Pipeline Background

Prior to pipeline clean out and abandonment activities the Kleinfelder on-site manager had inventoried seven above ground pipelines that paralleled Bishop Road as noted in the work plan (Appendix A). However, as excavating and pipeline cutting began four additional pipelines were discovered resulting in a total of 11 pipelines, including an active 8-inch pipeline that lies immediately adjacent to the abandoned pipelines.

Safety and Health

Prior to each days activities a safety tailgate meeting was held. On-site safety equipment included hard hats, steel toe boots, gloves, safety glasses, an explosive meter, photoionization detector (PID), fire extinguishers, absorbent material, oil booms and a first aid kit. Paul Supak (Kleinfelder) was the designated Site Safety Officer for the pipeline activities. All on site personnel had 40-hour HAZWOPER training and valid 8-hour refresher training. Personal protective equipment (PPE) also included organic vapor respirators.

No excavations extended deeper than four feet and as a result shoring was not required.

Pipeline Cleanout Activities

The following chronology of activities is provided.

Monday, June 12

Prior to the initiation of field activities the on-site personnel, which included Paul Supak (Kleinfelder), Casey Wills (USA Environmental (USA)) and Marlin Fuller (USA) held a site safety meeting and discussed the location and the numbers of emergency services. Prior to mobilizing a line locator had been called and utilities in the area were marked. After the safety meeting a thorough site reconnaissance was performed of all pipeline locations and block valves.

During the reconnaissance a nest of bees was found in one of the pipelines and an exterminator (PestPatrol) was called to remove the nest from the pipe.

The remainder of the day until 6:00 pm was spent using the USA line locator to trace the pipelines from Bishop Road (where they go underground) to the planned clean out and abandonment point near Sunray Road. Photo 1 shows the above ground pipelines that lead from the refinery to Bishop Road where the pipelines go underground.

Tuesday, June 13

Paul Supak, Casey Wills and Marlin Fuller held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

Holes were carefully drilled into the tops of the three pipelines located inside a concrete containment near Bishop Road (Photo 2). After drilling the holes an explosimeter and PID were used to monitor the volatile vapors. In the westernmost pipeline vapors were recorded at concentrations of 20 ppm and the Lower Explosive Limit (LEL) was >10%. The pipeline was allowed to vent and was re-evaluated to ensure a safe condition prior to cutting.

Prior to cutting the pipelines Phillip Service Corporation (PSC) provided a vacuum truck to remove any liquid detected in the pipelines or to recover any spilled liquid. When one of the pipelines in the concrete containment was cut, approximately 20 gallons of liquid were released into the concrete containment (Photo 3) and the vacuum truck was used to remove the liquid. No liquid was spilled on the ground. Excavation began at this location (Photo 4).

Additional pipelines, some of which were in poor condition were cut and work stopped at 6:30 pm.

Wednesday, June 14

Paul Supak, Casey Wills and Marlin Fuller held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

USA continued to cut pipelines at the Bishop Road location and a PSC vacuum truck was at the site to remove liquid from the pipelines.

Prior to any cutting or welding the excavation, vapors were checked and all readings indicated a safe work environment.

By 1:45 all the contents of the pipelines were evacuated from the segment between Bishop Road and Sunray Road and from Sunray road to the former and current barge dock facilities. PSC vacuum trucks recovered approximately 8,400 gallons of water and hydrocarbons during pigging operations.

The following pipelines were detected in the excavation.

West to East on South (refinery) side of excavation:

1. 6" – Black band capped
2. 8" – White PVC capped
3. 10" – Steel plate seal welded
4. 6" – Black band capped
5. 10" – Steel plate seal welded
6. 8" – White PVC capped
7. 10" – Steel plate seal welded
8. 12" – Steel plate seal welded
9. 8" – White PVC capped
10. 8" – White PVC capped

West to East on North (former and current barge dock) side of excavation:

1. 6" – Black band capped
2. Position 2 is vacant and should have lined up with the opposite 8". During the excavating, the 8"was found already cut and capped closer to the road. That section of pipe was removed.
3. 10" – Steel plate seal welded
4. 6" – Black band capped
5. 10" – Steel plate seal welded
6. 8" – White PVC capped
7. 10" – Steel plate seal welded
8. 12" – Steel plate seal welded
9. 8" – Steel plate seal welded
10. 8" – White PVC capped

The excavated pipelines are depicted on the following drawing.

The EPA RPM and a representative of the TCEQ witnessed activities.

Addition pipeline location activities were performed with the help of a Superior Crude Gathering (Superior) employee. Superior leases tanks at the refinery and uses the active pipeline to load crude into barges at the docking facility.

Pipeline excavation began at the Sunray Road location (Photo 5) and work stopped at 6:30 pm.

Thursday, June 15

Paul Supak, Casey Wills and Marlin Fuller held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

An excavator was used to expose the pipelines at the Sunray Road location and PSC was on-site to remove groundwater from the excavation. After excavating and uncovering ten pipelines it was discovered that one of the 8-inch pipelines had already been cut and capped at this location.

The EPA RPM and a representative of the TCEQ witnessed activities.

After all the pipelines were exposed USA began drilling holes in the tops of the pipelines and worked stopped at 6:30 pm.

Friday, June 16

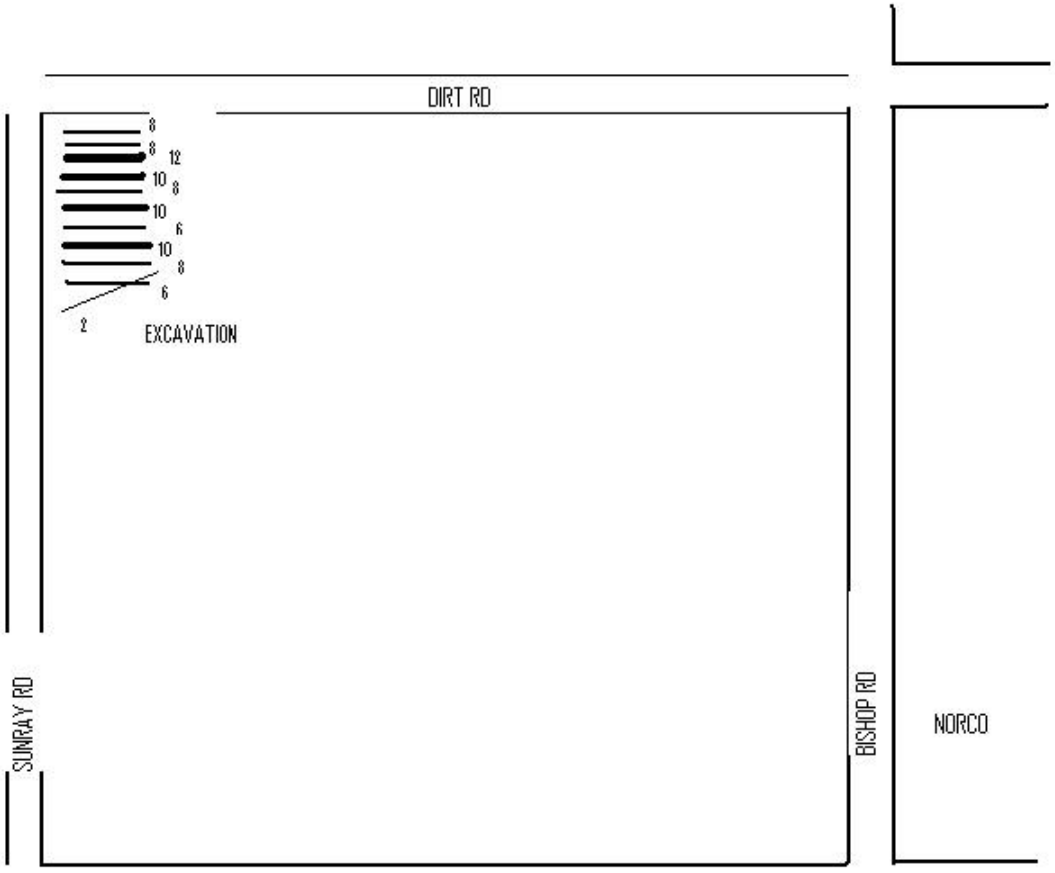
Paul Supak, Casey Wills and Marlin Fuller held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

The excavator continued to expose the remainder of the pipelines and the holes were drilled into all the pipelines. Hydrocarbon vapors were detected at a concentration of 9.5 ppm and respirators were worn until vapors were no longer detected.

A pneumatic saw was used to cut sections out of each of the abandoned pipelines and the initial pipeline was pigged from Bishop Road to Sunray Road. The remainders of the pipelines were cut and sections of pipe were removed (Photos 6, 7 and 8). Pigging continued and the site was secured at 6:30 when work stopped (Photo 9).

Saturday, June 17

Robert Lindsey (Kleinfelder), Casey Wills and Marlin Fuller held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered. Specifically the topics discussed included heat, dehydration, hot work (cutting and welding) and PPE.



All lines were completed and sealed off as shown in Photos 10 and 11. Backfilling, compaction and leveling of the site were completed at 7:00 pm.

Prior to abandoning the site all visually impacted liquids and soil were removed by the vacuum truck and soil samples were obtained from the excavation and analyzed for volatile organic compounds and semi-volatile compounds. The results of the analyses will be discussed later in this report.

Tuesday, June 20

Paul Supak, Casey Wills and Darren Dilliot (USA) held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

USA welded steel caps onto the ends of the three 8" pipelines in the concrete containment at Bishop Rd. and onto the ends of the 12" pipe, the 10" pipe, and the 6" pipe below the pipe rack at Bishop Rd. The remaining five pipelines (two 10", two 8", and a 6") were filled with concrete rather than having welded caps because the pipes were too corroded to be welded (Photo 12). USA began to weld flanges onto the ends of the pipes on the pipe rack.

The site was secured prior to work stoppage for the day at 6:30 pm.

Wednesday, June 21

Paul Supak, Casey Wills and Darren Dilliot (USA) held a safety meeting to discuss the planned activities for the day and the possible hazards that could be encountered.

The remaining pipelines at the Bishop Road location had flanges welded onto the pipelines and then caps were bolted on the flanges.

Project Summary

Ten out of service pipelines were cut and capped at the point that the pipelines go underground near the intersection of Bishop Road and Bay Avenue. Near the intersection of Sunray Road the ten pipelines were cut again and a section of pipe was removed from each pipeline. Caps were welded on the ends of the pipelines after the pipelines were either pigged clean or a vacuum was placed on the pipeline to remove all the contents. In total approximately 8,400 gallons of hydrocarbons and water were removed from the pipelines and placed in Tank 26 on the refinery property.

As required by the EPA the contents of the pipelines were removed from the section of pipeline form Bishop Road to Sunray Road and from Sunray Road to the former and current barge dock facilities.

After any spilled liquid and impacted soil was removed from the excavation at Sunray Road two sediment samples were obtained for laboratory analysis of volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC). Results of the analyses, which are in Appendix C, indicated several VOC were detected. However, only acetone and toluene were detected above the laboratory reporting limits.

The maximum value for acetone in the sediment was 73 ug/kg and the TCEQ Ecological Benchmark for acetone is 60,030 ug/kg for freshwater and 167,230 ug/kg for marine sediment. The maximum value for toluene was 6.6 ug/kg and the Ecological Benchmarks are 2,880 ug/kg and 940 ug/kg respectively.

The area of the abandoned pipelines will be further evaluated during the RI/FS.

After the pipeline clean out and abandonment NORCO hired Wendell and Associates to perform a Corrosion Mitigation Survey of the active 8-inch pipeline that connects the refinery to the current barge dock facility. A copy of the report is included in Appendix D.

Results of the survey included a detailed map showing the location of the 8-inch pipeline, which is different from the location that NORCO was provided. Included as Figure 1 is a

pipeline map showing the suspected pipeline location and the correct location as determined by Wendel. The survey also provided the names of three pipelines that cross the NORCO pipeline, which include two pipelines owned by Gulf South (Photo 13) and one owned by Boss Pipeline. In addition Plains Marketing owns a pipeline that runs through the wetlands adjacent to the refinery. The city of Aransas Pass also has a water main along Sunray Road (Photo 14).

NORCO is in the process of implementing the recommendations in the mitigation survey.

Monday, June 12, 2006

08:00 – Paul Supak (Kleinfelder) on site
10:00 – Casey Wills (USA Env) and Marlin Fuller (USA Env) on site
10:00-12:00 – Site recon
15:00 – Joe Benavidez (PestPatrol) on site to remove bee nest in pipe
16:00-18:00 – USA Env used locator to locate pipe line traveling from Bishop Rd to Sunray Rd

Tuesday, June 13, 2006

07:00 – Paul Supak, Casey Wills, and Marlin Fuller on site
Safety meeting to discuss hazards associated with task
08:00 – USA Env began to drill holes in the three pipes located inside the concrete containment
The western most pipe recorded benzene at 20 ppm and LEL >10%
The western most pipe was allowed to vent and normal levels were achieved
USA Env began to cut the corroded pipes at the pipe rack on Bishop Rd
PSC was on site to vacuum liquids from the pipes
USA Env cut the pipe in the concrete containment PSC vacuumed the liquids
18:30 – Work stopped

Wednesday, June 14, 2006

07:00 – Paul Supak, Casey Wills, and Marlin Fuller on site
Safety meeting to discuss hazards associated with task
08:00 – USA continued to cut pipes from the pipe rack at Bishop Rd
PSC was on site to remove liquids
14:00 – EPA and TCEQ briefly on site
15:30 – USA used locator to locate lines from Bishop Rd to Sunray Rd
Dirt (Superior) on site to help identify location of active line
16:30 – USA began to excavate at Sunray Rd
Backhoe kept getting stuck
18:30 – Work stopped

Thursday, June 15, 2006

07:00 – Paul Supak, Casey Wills, and Marlin Fuller on site
Safety meeting to discuss hazards associated with task
08:00 – USA used excavator to continue excavating pipes at Sunray Rd
PSC on site to remove groundwater from excavation
10:30 – EPA on site – expressed concerns about area north of Sunray Rd
12:00 – USA began drilling holes into pipes at Sunray Rd
PSC on site to vacuum liquids

Thursday, June 15, 2006

15:00 – USA used pneumatic saw to cut vacuumed pipes
18:30 – Work stopped

Friday, June 16, 2006

07:00 – Paul Supak, Casey Wills, and Marlin Fuller on site
Safety meeting to discuss hazards associated with task
08:00 – USA continued excavating pipes at Sunray Rd
USA continued drilling holes in the pipes at Sunray Rd
PSC was on site to vacuum liquids
Benzene was detected at 9.5 ppm and respirators were worn until levels receded
Benzene was detected at 5.4 ppm and respirators were worn until level receded
USA continued to cut the vacuumed pipes
11 pipes were excavated – four 8", one 12", three 10", two 6", and one 2"
16:30 – USA began to set up an 8" for pigging
18:30 – Work stopped

Saturday, June 17, 2006

Robert Linsey (Kleinfelder), Casey Wills, and Martin Fuller on site
USA used vacuum truck to pig lines from Sunray Rd to Bishop Rd
USA capped lines at Sunray Rd and placed removed soil back in the excavation

Tuesday, June 20, 2006

07:00 – Paul Supak, Casey Wills, and Darren Dilliot on site
Safety meeting to discuss hazards associated with task
08:00 – USA welded steel caps onto the ends of the three 8" pipes in the concrete containment at Bishop Rd. USA welded steel caps onto the ends of the 12" pipe, the 10" pipe, and a 6" pipe below the pipe rack at Bishop Rd. The remaining five pipes (two 10", two 8", and a 6") were filled with concrete because the pipes were too corroded to be welded to. USA began to weld flanges onto the ends of the pipes on the pipe rack.
18:30 – Work stopped

Wednesday, June 21, 2006

07:00 – Paul Supak, Casey Wills, and Darren Dilliot on site
Safety meeting to discuss hazards associated with task
08:00 – USA welded the remaining flanges onto the pipes on the pipe rack at Bishop Rd and then bolted caps to the flanges.
12:00 – Work stopped

Pipeline Cleanout **Falcon Refinery**

USA Environment, LP performed a pipeline cleanout for pipelines that connected the Falcon Refinery to the current and former barge docking facilities. The cleanout took place from June 12, 2006 to June 21, 2006.

There were eleven abandoned pipelines located at Bishop Rd. (one 12", three 10", five 8", and two 6"). One 8" remained active.

Prior to work beginning, the proper entities were notified to locate and mark utility lines.

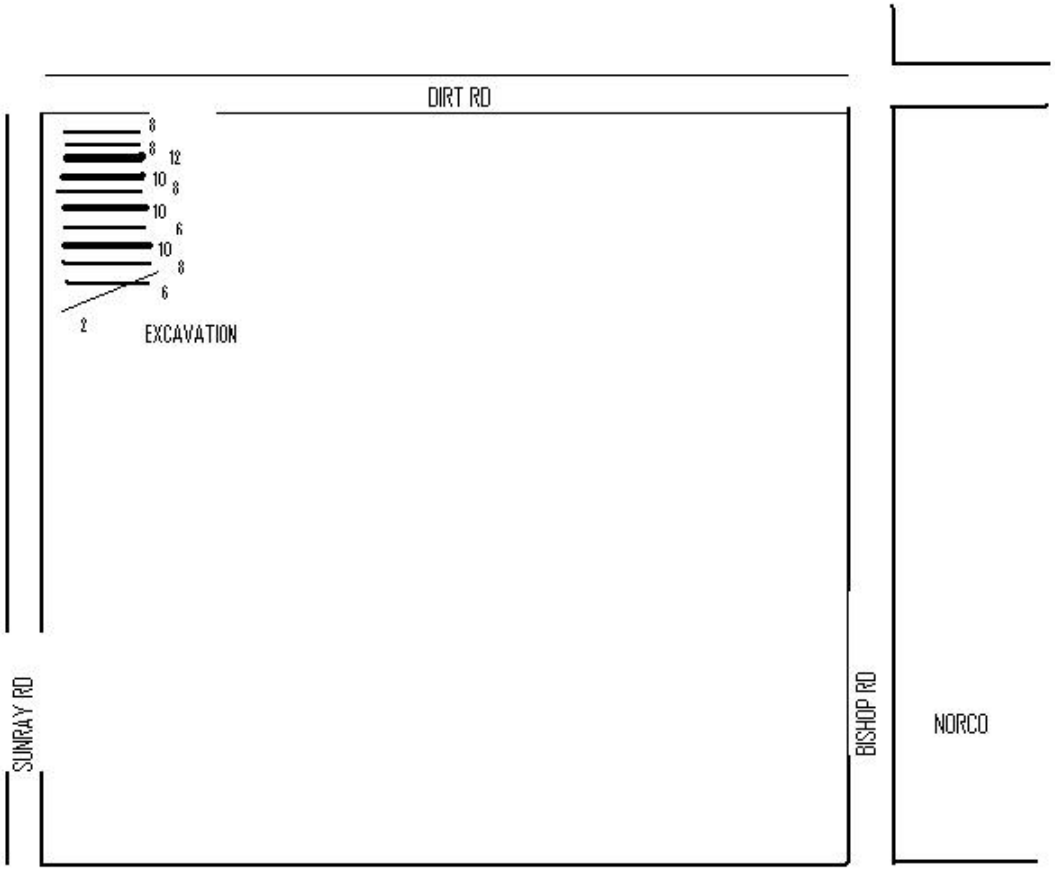
USA (Casey Wills, Marlin Fuller) arrived on site on June 12, 2006. Paul Supak (Kleinfelder) provided USA with the approved Site-Specific Health and Safety Plan. A site reconnaissance was conducted. USA traced the lines from the end of the pipe rack at Bishop Rd leading into the plant to verify all valves were closed. A locator was used to trace and identify the pipelines from Bishop Rd to Sunray Rd. A Superior (Dirt) employee provided the location and path of the active line.

Prior to each days activities, a safety meeting was held to discuss the hazards associated with the tasks.

Before any pipelines could be cut, holes were drilled into the top of each pipeline to determine if any liquid was present. A vacuum truck (PSC) was on stand-by to remove any fluids present. The pipes were checked for explosive vapors and benzene. Pipes that measured levels that met or exceeded the action levels were allowed to vent. Respirators were used when work took place near areas where action levels were met or exceeded.

When all of the lines at Bishop Rd were cut, USA began excavating the pipelines at Sunray Rd. Eleven lines were excavated at Sunray Rd. One 12", three 10", four 8", two 6", and one 2". The 2" was believed to be a gas line and was not touched. One of the 8" lines was found to be capped. The same process of drilling into the top of each line and vacuuming out the liquids was used at Sunray Rd. When the lines were free of residual liquids, a pig was pulled through the lines with the vacuum truck. The cut lines were capped and the removed soil was placed back in the excavation.

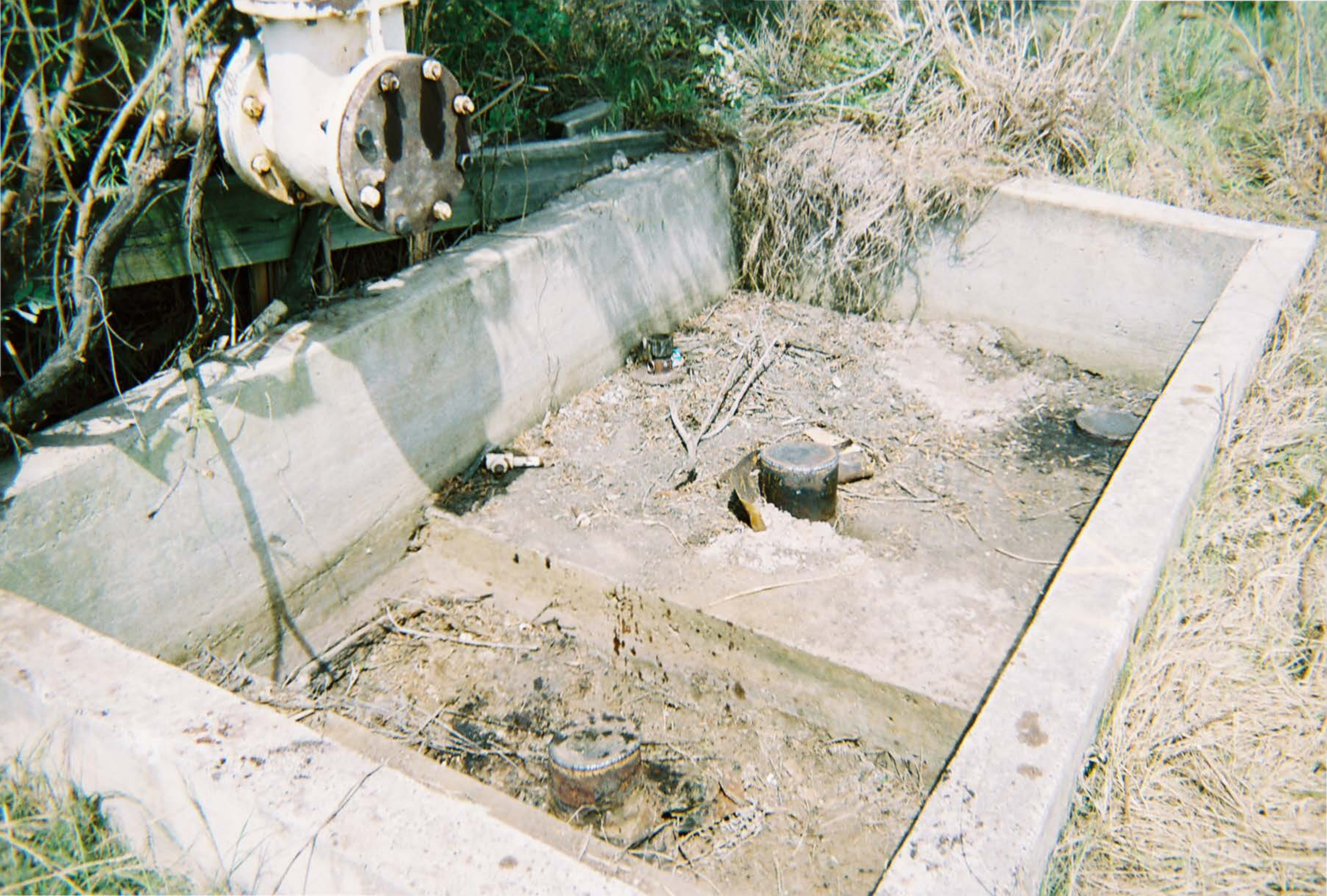
USA completed the project after welding steel caps onto six of the lines and pouring concrete into five of the lines. The pipes on the rack had flanges welded on and caps bolted to the flanges.



Drawing of pipeline excavation at Sunray Rd.

I am approving your proposal for the pipeline cleanouts on the condition that the lines are cleaned out from where they go underground all the way through the location of the old historic dock. From what you have told me, NORCO and/or the historical owners of the refinery had 7 pipelines that travelled parallel to Bay Road from approximately Bishop Road underneath Sunray Road and towards an old historical dock use by the refinery. It is also my understanding that one of the seven is an active line (used currently by Superior Crude) from the refinery that was tapped and ridirected to the new existing dock. It is the expectation of EPA that all of the abandoned lines or portions thereof be cleaned out all the way to the old historic dock including the abadoned portion of the line that was tapped for the active line. Therefore, you may need to make a slight modification to your proposal.

On another issue, EPA would like you to identify the owners of all of the pipelines that run along Bay Road between Bishop Road and Sunray Road and Sunray Road to the old dock and Bay road to the new dock. This identification should be in the form of a photo/diagram which identifies the location of the pipelines, where they run, and who owns them.




Ingersoll Rand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Hertz
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ACTIVE